DOCUMENT RESUME

ED 384 904 CS 214 970

AUTHOR Kern, Detlef
TITLE Increasing Computer Utilization for a High School Writing Class through Teacher and Student Education.
PUB DATE 95
NOTE 38p.; Ed.D. Practicum, Nova Southeastern University. Faint and broken type may not reproduce legibly.
PUB TYPE Dissertations/Theses - Practicum Papers (043)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Computer Anxiety; Computer Literacy; *Computer Uses in Education; High Schools; High School Students; *Inservice Teacher Education; *Peer Teaching; Program Effectiveness; *Student Participation; *Writing Instruction; *Writing Laboratories
IDENTIFIERS School Culture; *Technology Integration

ABSTRACT

A practicum was designed to increase the utilization of seldom-used computers by the writing class in a small rural community high school in the eastern United States through teacher and student education. Through a collaborative team effort of computer-competent teachers and students, an in-service program was developed to teach the basic use of computers to the computer illiterate. Activities such as modeling, peer teaching, and on-line writing exchange helped establish a productive environment. The results of the practicum were positive. Students in the writing class used the computer lab a minimum of three times a week. Some individuals who were not in class asked to participate in the program during their free time. As a result, other classes using the writing class as a model, began to use the computer lab for their own writing assignments. The practicum's goal of increased participation and education of teachers and students was attained. Teachers, some of whom had technophobia, overcame their fears and incorporated the computer in their classroom. Students were guided and taught that technology can be very helpful in writing class as well as in other curricula. The collaborative efforts of students and teachers insured the success of the practicum. (Contains 15 references.)
(Author/RS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 384 904

Increasing Computer Utilization For A High School Writing Class Through Teacher and Student Education

by

Detlef Kern

Cluster 57

"PERMISSION TO REPRODUCE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY

D Kern

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

A Practicum I Report Presented to the
Ed. D. Program in Child and Youth Studies
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

NOVA SOUTHEASTERN UNIVERSITY

1995

CS214970

BEST COPY AVAILABLE

PRACTICUM APPROVAL SHEET

This practicum took place as described.

Verifier: Grace Lehotay
Grace Lehotay

English/Foreign Language Supervisor
Title

Tuckerton, New Jersey
Address

4/7/95
Date

This practicum report was submitted by Detlef Kern under the direction of the adviser listed below. It was submitted to the Ed.D. Program in Child and Youth Studies and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova University.

Approved:

April 22, 1995
Date of Final Approval of Report

Ann E. Fordham
Ann E. Fordham, Ed.D.

TABLE OF CONTENTS

Page

TABLE OF CONTENTS i

Chapter

I INTRODUCTION 1

Description of Community 1
Writer's Work Setting and Role 2

II STUDY OF THE PROBLEM 6

Problem Description 6
Problem Documentation. 6
Causative Analysis 7
Relationship of the Problem to the Literature 8

III ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS. 12

Goals and Expectations 12
Expected Outcomes 12
Measurement of Outcomes 13

IV SOLUTION STRATEGY 14

Discussion and Evaluation of Solutions 14
Description of Selected Solution 15
Report of Action Taken 18

V RESULTS, DISCUSSION AND RECOMMENDATIONS 24

Results 24
Discussion 27
Recommendations 30
Dissemination 30

REFERENCES 32

ABSTRACT

Increasing Computer Utilization for a High School Writing Class Through Teacher and Student Education. Kern, Detlef. 1995: Practicum Report, Nova University, Ed. E. Program in Child and Youth Studies. Descriptors: Technology/ Generalization/ Teacher In-Service/ Collaborative Education/ Peer Teaching.

The computer labs, which were grant-funded and installed in our school five years ago for the purpose of integrating them into the school system, were seldom used. This practicum was designed to increase the utilization of the computer in writing class through teacher and student education.

The writer, through a collaborative team effort of computer competent teachers and students, developed a program in which an in-service program taught the basic use of computers to the computer illiterate. They utilized the computer lab for a high school writing class. Activities such as modeling, peer teaching and on-line writing exchange helped establish a productive environment.

The results of the practicum were positive. Students in the writing class used the computer lab a minimum of three times a week. Some individuals who were not in class asked to participate in the program during their free time. As a result, other classes using the writing class as a model began to use the computer lab for their own writing assignments. The practicum's goal of increased participation and education of teachers and students was attained. Teachers, some of whom had technophobia, overcame their fears and incorporated the computer in their classroom. Students were guided and taught that technology can be very helpful in writing class as well as in other curricula. The collaborative efforts of students and teachers insured the success of the practicum.

* * * * * * * *

Permission Statement:

As a student in the Ed. D. Program in Child and Youth Studies, I do (X) do not ( ) give permission to Nova Southeastern University to distribute copies of this practicum report on request from interested individuals. It is my understanding that Nova Southeastern University will not charge for this dissemination except to cover the costs of microfiching, handling and mailing of the materials.

5/2/95 Detlef Kern

CHAPTER I

INTRODUCTION

Description of the Community

The writer of this practicum works in a small rural community in the eastern region of the United States. The community consists of an area of 147 square miles located along the coast. The nearest major city is approximately 60 miles.

Although the four communities of the school district have not experienced the growth that other parts of the state have, it still has been substantial. From 1970 to 1980, the district grew 102 percent, from 6,580 to 13,308. This increased to 20,615 in 1990 and is projected from 25,616 by the year 2000. (Babineau, 1988.)

Due to the geographic area there is little industry, and the anticipation for commercial growth to support the added population seems dim. This has put an extra burden on the taxpayers. The backlash is that a majority of budgets have been defeated. Then, once defeated, "extras" are cut out of the budget. The rationale is no frills. Most of our students are not college bound, so why the big fuss. This attitude has changed quite a bit over the past four years. In 1989, the number of students going to a two year or four year college after graduation was 39 percent. This has increased to 58 percent in 1993. (Gillece, 1993). Students are more serious about their studies and many of the underclassmen have aspirations of furthering their education after graduation. More and more advanced courses are incorporated into the curriculum so that graduates can compete for the colleges of their choices.

Work Setting and Role

The school in which the writer works is a four year comprehensive high school. It opened in September, 1979, and won numerous architectural awards for its design. The building is very appealing and visiting students are envious of our commons, a large open area in the middle of school which has actual growing trees and shrubs. The enrollment is 865 students with an average class size of thirty students. The curriculum is multi-faceted and multi-leveled. Class periods are 45 minutes in length and meet five periods per week. The scheduling allows the flexibility of labs which are of 90 minute durations.

The writer has been involved as an educator in the public school system since 1972. During those twenty-two years of teaching, the writer has worked for many commissioners of education with just as many educational philosophies. Because of, and sometimes despite these philosophies, one thing was always a constant -- students learned. Education has always been an important element in the life of the writer because at the age of seven he immigrated to the United States. Therefore, at an early age, the writer realized that education led to the path that helped acquire the American Dream and it is the writer's belief that it still holds the key. After attending a parochial high school the writer attended a small liberal arts college. During the writer's undergraduate studies he was encouraged to participate in many diverse courses and activities. After completing the undergraduate work, the writer applied to, and was accepted in a M.A.T. program. This program offered a perfect match for the writer's previous studies and allowed the writer to develop and polish teaching methodologies. It was in that program that the writer first was introduced to technology and its possible future implications in education.

The writer's first teaching opportunity was to teach German and English at a small high school. Because of a helpful staff and the relatively small faculty, the writer had the opportunity to participate in various committees. These experiences helped the writer see how the educational process works and what steps and strategies are needed to go about instituting change. The most memorable committees were the following:

A. H.S.P.T. Committee (High School Proficiency Test) - This group consisted of various teachers across the curriculum that looked at the statewide H.S.P.T. test and made recommendations of what changes could be instituted in our school's curriculum so that our test scores would be favorable.

B. Middle States Guide Group - This committee did preliminary evaluation of the school and curriculum in preparation for the Middle States evaluation.

C. District-wide Advisory Council - This committee's primary purpose was to continually monitor the educational process of grades K - 12. Teachers from the elementary, middle and high school were represented. The group met once a month with the Superintendent to discuss possible modifications or concerns.

D. Middle School Evaluation Study - This committee, of which the writer had the privilege to chair, took an in-depth look at our district configuration. After a year of study, town meetings and long discussions, we made recommendations to the Board of Education regarding the feasibility of the middle school.

These are some of the experiences that helped the writer get a grasp of the workings of a school district. They have helped the writer to understand the chain of command in a school district and will be of value in the implementation of the Practicum. Besides learning the inner workings of the school district, the writer also had an opportunity to teach various classes. Along with the German classes, there was also a need for an English teacher. The job description called for two German and three English classes. The writer saw this as a challenge and prepared by attending workshops relating to the subjects taught. In the first summer the writer enrolled in a creative writing class and a secondary literature course. The school district encouraged the attendance of workshops and partially funded taking courses. Throughout the twelve-year stay in the school, the writer tried to improve methodologies, techniques and ways in which to generate ideas relating to the courses taught by attending workshops and enrolling in summer classes.

When an opportunity presented itself to teach in a larger school, the writer saw new possibilities to grow professionally. The new and present high school, previously described, offered challenges that greatly differed. The first of these challenges was the

curriculum. The combination of German English was replaced by all English literature classes. This has been the writer's role for the past eight years. Recently, because of the declining enrollment in the writing class, the writer was asked to teach the class and to stimulate interest. Presently, the writer's schedule consists of two freshman literature classes, one ninth grade basic skills class, one sophomore literature class and the writing class. This is subject to change depending upon enrollment for the fall's schedule which might necessitate instituting two writing classes.

The second challenge was that it opened doors that the previous school could not give. A larger school has a larger budget; consequently, grant writing and budgeting provides the school with materials in technology that were previously unattainable. Lastly, because it was a regional school, it gave the writer a new population with which to work. Instead of an affluent, motivated child who had been parentally programmed to go to college, now there were students who were at-risk, displaced or abused. This new set of factors forced the writer to seek new ways in which to motivate students. It also opened doors that the previous school could not give. A larger school has a larger budget; consequently, grant writing and budgeting provides the school with materials and technology that previously were unattainable.

The last and possibly the biggest challenge came last year when the writer was asked to take a fledging writing class. The enrollment was steadily decreasing and much of the interest was waning. The writer convinced the administration of the importance of the class and was given a year's trial to try to boost the enrollment of the class. Because it was an elective, a minimum of fifteen students had to be registered in order for it to be offered. The initial sign-up for surpassed the number for the first year, and this year the number of pre-registered students exceeds twenty-four.

CHAPTER II

STUDY OF THE PROBLEM

Problem Description

The writing class consists of twenty-four students. The grades of the students range from ninth grade through twelfth. The school has three computer labs which were grant-funded and installed five years ago for the purpose of integrating them into the curriculum. Unfortunately, neither the writer, who is the only writing teacher, nor the other academic teachers have had meaningful training in the use of computers. The lab was used sporadically by the Business Department, and the Night School offered various computer courses. This problem had been periodically addressed; however, lack of initiative often put the issue aside. Teachers had been aware of the value of teaching technology usage but nothing had ever been done. The technology was and had been present but the students did not have the opportunity to utilize it. In summary, the problem was that the students had insufficient opportunity to utilize existing technology in their writing class.

Problem Documentation

The documentation of the problem included the following points of evidence:

Point of Evidence #1 - In the past year, based on a daily sign-up sheet, the computer lab was used a mere eight times for the writing class.

Point of Evidence #2 - A review of the past school calendars showed that not one in-service day had been devoted to technology.

Point of Evidence #3 - A review of the past four years writing class teaching budgets which the teachers individually prepared, showed that no money had been allocated to buy software relating the writing curriculum.

Point of Evidence #4 - There were no support services related to technology available in our school or district for teachers.

Causative Analysis

The reason for the lack of utilization of technology in the writing class which lead to the causes of the problem was twofold. First, the writing classes had always been taught with traditional methodology. Why change? The staff with whom the writer worked consisted of teachers with ten years of teaching experience or more. The teachers had experience using their teaching style and had experienced various levels of success. Based on discussions on why technology had not been incorporated into the curriculum -- reluctance to change was often the first reply. The methods for presenting the class had been used for years and had been successful -- so why explore something that was totally new.

Second, because of the lack of training, many members of the faculty had technophobia. The school had encouraged the use of technology but without much success. Technophobia and unwillingness to change were two stumbling blocks that had prevented the use of technology from being used as part of the curriculum. Whenever any kind of change was suggested or implemented, a certain risk was taken. Teachers who had been in the profession for a number of years feared to take a risk that could possibly put them into a situation for which they were not prepared. Self confidence played a large role in this. If a teacher had fear for the new technology, then he or she would not readily

experiment with its usage. The teaching staff with whom the writer worked were instructed in a methodology in which the control was in the hands of the teacher. Now utilizing technology as an aid in teaching, some of that control was given up. This contributed to the technophobia. After much background reading and consulting with the administration, the writer decided to take a risk and implemented a writing class using existing technology.

Relationship of the Problem to the Literature

More consistent upgrading in schools, especially in the area of utilization of technology, was the constant topic of professional journals. Authors such as Roberts and Mutter (1991) provided a framework for the implementation of computer-assisted writing. This helped provide instructors designing computer labs with a model of how to begin and maintain a program that uses computer-assisted writing. Harmon (1986) offered help to novice computer users in assessing with the evaluation of microcomputers and programs relating to computer-assisted class. It is suggested that before the computer technology is first implemented an assessment of students' attitudes toward computer technology may be beneficial. (Barba, 1991). Research showed that there are obvious benefits that can be derived from establishing computer-assisted writing classes. Once these are established, they can be used as a motivator for students to write, inquire and learn.

Some of the problems that the writer incurred are not just particular to his school or school district. The unwillingness to change and technophobia were problems that existed as much of the literature indicated throughout. Technophobia was a common problem not only for instructors but also for students. Shipman (1987) found that many

of the fears are common. The means by which the fears are met can be helpful for students and instructors alike. If the writer was going to be successful in the computer implementation this was certainly the first problem that had to be addressed.

One of the fallacies that had been common was that in order to teach the computer you havd to be an expert at computerese. This often added to the fear of instructing, but as Germain (1987) found this is not always the case. In the writer's setting, assistance was not readily available and there were ways in which increase of the use of the computer lab was accomplished without expertise in the field.

Harmon (1986) stated that the key to getting a functional writing lab is by the careful selection of software. This software can be used as various forms of instruction to educate teachers in computer utilization.

Overcoming technophobia and establishing cures for computer-phobia is as complex as some of the computers themselves (Widmer, 1984). This was the case in the writer's dilemma. On one hand there was a pressing need for change and use of technology, but the establishment of the right attitude for educators was a major challenge. In a 1992 study, Hignite encountered such problems. He found that the attitudinal adjustment were the major hurdle to overcome in the implementation of computer instruction. However, this should not be a reason to change plans for computer utilization. As Furst-Bowe (1992) stated the time to start with existing instructional technology is now. That was easily related to by the writer because the technology had been in the school for some times and now was the time for its utilization.

One dimension of technophobia that was surprising was that students often had apprehension as well. Engleman (1992) did a comparison study which measured the writing apprehension of two groups. The first was situated in a computer lab environment while the other was in a classroom environment. The results of the study were quite

interesting. Although some of the tests were inconclusive they did shed light on some problems that could present themselves with writing apprehension.

Writing apprehension had always been a problem with the writer's students and one area that the practicum targeted was how apprehension could be minimized. It was important assessing student's attitudes toward computer technology before starting the teaching of the class. (Barba, 1994). This was particularly true at first inception. For many this was a new experience and the transition from a traditional class to a class that was a little more progressive, proved to be a smooth one. Turnipseed (1991) found that knowing a student's attitude toward the computer will sometimes provide an explanation of certain behaviors. This was especially true when dealing with a diverse age group.

The writer was convinced that once teachers were willing to take the risk and technophobia for students and instructors was targeted, the utilization of the writing lab would just be a natural outgrowth of the educational process that was already in place.

Some of the causes of the lack of technological utilization revealed in literature was quite interesting. Although many schools have the facility to start a computer writing lab, schools do not have the encouragement or the know-how to get established. Often the best way to get a lab started is for the teacher to take the initiative because most administrators are not progressive enough to initiate the project. Computer-phobia which holds back the development and implementation of a new technological program is often due to lack of knowledge. Teachers need computer instruction as much as students to keep up to date with the latest advances and to build the confidence needed, so that their classes can be taught in a confident and informative way.

The writer's search of literature also touched upon topical areas that needed to be addressed. Teachers and administrators were not willing to experiment with new ideas:

therefore, psychology and sociology were important topical areas to consider if the writer wanted to become an agent of change. Not only are the new ideas important that the educator was trying to implement, but also how they would be proposed. The approach was often the final piece that sold the idea.

CHAPTER III

ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS

Goals and Expectations

The following goal was projected for this practicum:

Existing technology will be utilized by students for the English writing class. (The computer lab which has been in the school for five years has not been used for this class.)

Expected Outcomes

The expected outcomes included:

Outcome #1 - Based on a daily class sign-up sheet, the computer lab will be used by the English writing class three times a week during the three month implementation period. The students in the class will have the opportunity to use the computer lab as reflected by the sign-in log. Although there is only one writing class, students will use the computers in other classes to complete essays, projects or papers. The success of the students will be demonstrated during implementation by exhibiting an understanding of the basic functions of the computer for the writing class. The students will also have an opportunity to utilize the computer lab after school on Tuesdys and Thursdays. This enables those who need extra help or who did not finish their assigned work during class time to have access to the lab. It also provides students time to utilize the lab for writing assignments that may not necessarily be for the class. The philosophy of the class is to get the students to use the computer for writing, whether it is for this particular class or an assignment for another class.

Outcome #2 - An in-service sign-up sheet of at least four teachers out of eight in the department will demonstrate a starting point from which to build future computer competency. Many teachers in the writer's department have either little experience using computers or have computer competence but with another type of computer. The in-service time will be used to address these issues. Once the teachers become more proficient in using the technology, the teachers will more readily incorporate technology into their curriculum. A good starting point would be for a minimum of four teachers to complete the in-service program so that future technology usage will be available in all classes.

Outcome #3 - Since many schools in the area are in the process of updating their teaching methodologies through the use of computers it is the writer's intent to establish a network with them for the purpose of sharing ideas and expanding meaningful and purposeful communication by using computers effectively. A starting point which would demonstrate success would be that at least one other school would be on line for the purpose of the writing exchange. This can effectively be done by visiting the area schools and exchanging ideas on how the "on-line" experience could benefit both schools.

Measurement of Outcomes

Since the computer lab has not been used for the purpose of writing instruction, it was the writer's intent to use the sign-up log as the primary instrument that would measure whether or not the expected outcomes had been reached. This instrument would be used not only to monitor the use of the writing lab but also for the in-service day.

CHAPTER IV

SOLUTION STRATEGY

Discussion and Evaluation of Solutions

Although the school has three computer labs, the students had insufficient opportunity to utilize existing technology in their English writing class. It is not only the school in which the writer works that this was a problem. Education is undergoing a major change. Unfortunately, while initiating this change not much thought was given to the process. This is not a unique problem. The research is abundant with information that relates to this problem, related areas and their solutions.

The most common factor that the writer found in research, that relates to the problem addressed in the curriculum was computer phobia. The causes of computer phobia is often related to lack of knowledge (Kennedy, 1988). This study found that once students and educators became familiar with the workings of a computer and its possibilities, much of the anxiety was lessened. Specific strategies have been developed to address computer anxiety. These strategies included exact guidelines for instructors designing the use of the computer to support existing writing programs. (Selfe, 1987). The instructor does not have to be an expert in computers to utilize the technology. The use of hands-on workshops designed to reduce computer anxiety will relieve some of the foreseeable problems. Barrow (1985) found that the best way to overcome a problem is by this hands-on approach. The guidelines are established to support existing writing programs, based on three main suggestions:

1. design computer supported writing labs around writers, not around computers;

2. ground lab operations and instruction in current writing theory: and

3. use labs to support research on writing processes.

Through a thorough strategy much of the anxiety among educators over computers can be overcome. (Bracey, 1988)

A fear that often accompanies the use of technology is support. There are many aides that are available to help when first making a transition toward the use of technology. Software packages (SPIRIT) assists secondary students in all phases of the writing process. (VanderGeest, 1987). This is especially helpful when the teacher does not have the computer expertise. Therefore, the program can be used and learning takes place not only by the student but the teacher as well. Frustration is often linked with the writing process. Because of frustration, English computer labs were established in five high schools resulting in a step-by-step program that eliminated the problems previously experienced. (Roberts & Mutler, 1991). This study again reinforces that using technology has many benefits.

The solutions to the problem of students having insufficient opportunity to utilize existing technology in their writing class were twofold. The first was overcoming technophobia. The research had suggested various proven methods that worked. This obviously was a problem that was experienced by students and teachers alike.

Description of Selected Solution

Through the review of literature the writer recognized possibilities that could enhance the writing curriculum in his setting. The writer thought that this would be a successful venture because the students and faculty would see the merit of using the

available technology in the writing class. Both staff and students would continually learn. modify and develop a program that was of value. The students had a feeling of confidence and self-worth because of the input that they were able to contribute. The problem of technophobia lessened by educating the faculty and students. To overcome the frustration and thereby the phobia. the writer investigated the various software packages available that assisted students in their writing. Software that organized and systematically taught the process of writing was acquired. By looking at the research. suggestions and solutions were found to the practicum's problem. These concrete ideas turned educators and students into technology users and supporters. The writing teacher's role varied according to the amount of expertise exhibited using the computer. It was important that the writer acted as a coordinator and facilitator. One thought that came to the writer's mind was approaching this in terms of a mutual learning experience. The writer's knowledge in the use of computers was limited and this was a good opportunity to utilize students in the class that had ability in the use of computers. It gave them an opportunity to share some of their talents. The students helped in the planning of the lesson and helped relieve the anxiety of the other students. Students were paired with less computer-able students who served as assistant instructors. In fact, some lessons were taught by these students to their peers. This modeling was another source of motivation. Students who were more competent with computers designed operational sheets that assisted students in their computer usage. To begin with. basic terminology and commands were taught. then gradually the more complicated functions were introduced. In a writing lab setting often one instructor was not enough. As students were used as instructors. more efficiency was developed. The class used the existing technology. and technophobia of students and teachers were alleviated.

The second solution suggested by research was in-service training. The Business Department, which had experience in teaching word processing, conducted the in-service days. It was a hands-on sessions designed to give teachers not familiar with computers a chance to develop skills that were be needed for future teaching. A help sheet was developed which was included basic skill commands and trouble shooting skills. Tapping the areas of expertise from the Business Department was one way in which in-service could be provided. They had the knowledge to provide staff members with the proper guidance for the use of the technology. As previously stated, phobia is often caused by lack of knowledge. Once knowledge was provided and the capabilities for the computer were demonstrated, a more relaxed approach in computer usage was established. Then the writer introduced the various programs that were available for use by students and teachers in the writing program. Also, advanced students who could be used as student assistants in the lab setting were recommended. These assistants were good models for students to see. Education is a lifelong process not just something that takes place during the school years, this was particularly true during the practicum. The teachers often learned as much as the students.

The writer coordinated the implementation of the practicum that utilized the use of computers in the writing class. This entailed instituting steps necessary to lessen technophobia, planning the in-service program and devising future roles for computer technology in the writing curriculum. The role of facilitator required the writer to make the transition to technology assistance as painless as possible. This included the writing of a simplified computer-users manual that provided necessary information to the writing student who had little computer skill.

Report of Action Taken

The practicum was carried out in the following manner:

Laying the Groundwork: In order to have a smooth practicum implementation period the writer took the following steps after the approval of the proposal.

First, the writer investigated the names of computer companies and local computer stores that could possibly be of assistance in providing ideas for the practicum. This was very helpful during the implementation because it helped the writer take stock of what equipment was available to assist the writer and students. Also, it provided ideas and direction for future purchases as budgets were approved. The writer had found that often technology purchases were made without any foresight as to the direction of future plans. This enabled the writer to establish a plan of attack that could be used in the future use of technology not only in the writing class but also across the curriculum.

Second, the writer met with the Superintendent to discuss the practicum and the direction that the writer wanted to take. At this time, the Superintendent was very helpful and supportive in directing the writer with the practicum. He supplied a list of schools and organizations that were taking a new direction in the use of technology and discussed the long range plans that our school system would initiate in the coming years.

Third, the writer had a preliminary meeting with the Business and Computer teachers to discuss ideas for the in-service training and to seek names of students that would serve as assistant instructors. This worked out well because some of the students that were computer literate were enrolled in the writing program and could be of help with the implementation of the practicum. The teachers offered suggestions as to how the student instructors could be most efficiently used.

Fourth, the first assignments for the computer literate students was to develop a manual that explained the simple functions that could be completed by the computer. It was designed for the "bluebird" group that had very little knowledge of the computers. After the completion of the manual the Business and Computer teachers conducted an evaluation and made the necessary addition and deletions. This manual will be constantly upgraded because the incoming classes will have had more knowledge working with computers.

Fifth, the second assignment for the computer literate students was to create a trouble-shooting sheet that lists some simple problems that might occur using the computer and what can be done to correct them. This is an ongoing process and every student in the class had an opportunity to add to the list.

After the groundwork was established the implementation of the practicum was the next major step. The beginning of the school year was a good time to start the practicum because students were full of energy and open to any new ideas. The computer lab was signed out for three times a week (Monday, Wednesday and Friday). Additional time was provided after school for any student who needed extra help or who might have been absent. The writer, prior to the first week of implementation, had been in contact with local computer stores and other school districts seeking possible ideas that could be used during the class. The computer stores offered lists of educational programs that were available and could be bought by the students at a substantial discount. The neighboring school districts shared some of their "growing pains" and provided the writer with ideas that were used for the course outline and kindled ideas for future courses. Also, once all schools were on-line, the possibility of establishing a computer network whereby the various writing classes could exchange ideas and original materials

was discussed. Next, a follow-up meeting was held with the Business and Computer teachers to plan for the in-service training.

During the second week of implementation the program was in full swing. At the first teachers' department meeting the writer explained the nature of the in-service training and the subsequent utilization of computers. Next, as a follow-up, the teachers who were interested, signed up for an in-service program that was given at a mutually agreeable time. The writer met with the assistant instructors who were given the trouble-shooting sheet so that they could familiarize themselves with it and make any additions that they deem necessary. It was also made clear that this sheet would continually be added to as the year progressed.

Up until this point, the implementation had been running smoothly. Now, in the third week, the writer hit the first snag. The writer assigned each student in his class a disc and a computer. The assistant instructors were assigned a number of students to help if it was needed. However, prior to the class someone had vandalized and broken off three of the computers floppy disc holders so that it was impossible to insert a floppy disc. The computer repairman, in his frustration, removed all of the floppy disc holders so that none of the computers were able to operate with a floppy disc. This changed our writing class strategy of loading all of our writing to a floppy disc. After a meeting with the assistant instructors it was decided that the writing would be "saved" on the hard drive and later, after editing and re-writing, it would be printed. This turned out to be a great lesson in problem solving.

During the fourth week, things moved smoothly again. The writer met with the assistant instructors to evaluate how things were progressing and modifications were made wherever necessary. One problem that was brought up was the necessity for more time.

Our classes are forty-two minutes long and by the time students got to the lab and entered their writing, time often was short. To help with the "shortage" of time, an extra day was allocated in which the students could work after school.

At the start of the second month, most of the problems had been worked out. The writing class continued to meet three times a week with additional time after school. The writer informed the faculty at a regularly-scheduled department meeting of the progress with the class and invited any teachers who had free time to discuss their experiences with technology in their class and how we could help each other. The writer continued to meet with the assistant instructors to seek input on the success of the program. Further research and evaluation on the topic of technology utilization was continued by the writer to help expand his field of knowledge.

The student assistant instructors and the writer felt comfortable with the lab format at this point and it was decided during our weekly meeting that it was time to introduce more advanced techniques. Cut and paste, spell check, grammar check and creating charts were some of the functions that the students learned to help them with their editing.

By the third week of the second month, students had become more proficient with their use of technology. At this point some of the students who had become proficient and confident in their use of technology volunteered to help peer counsel some of the less proficient students. By the fourth week it was time to evaluate and modify our procedures. At this time, because of the skill that many students had developed, the class took new shape. It was almost to a point where we had one-on-one instruction when needed. During the weekly meeting with assistant instructors, an update of the trouble-shoot sheet was written.

The class was also introduced to Internet and given reading material on some commercial online services that they could participate in. The school subscribed to one service and the writer and class made classroom connections with various classes across the country who were also participating in a similar fashion.

The third month again started without any problems. The writing class used the computer lab three times a week and some students continued to work after school on class projects or other schoolwork. Most of the classwork was completed in the forty-two minutes of class time and the writer noticed that fewer people needed the extra time after school to complete their assignments. The writer encouraged students to bring written assignments from other subjects so that they could be completed on the computer. One of the science classes was writing a research paper. The writer gave a presentation on how the paper was to be organized and during the presentation mentioned that the writing class was working with the computers. They were invited to use the writing lab if computers were open during that time or they could come after school. This generated a great response and the assistant instructors gladly assisted with a now familiar pattern.

In week two of the third month, students continued to learn new ways in which to use the computer. A group of students was selected to choose representative pieces of writing to be made into a booklet. The "editors" were given the task of organizing and compiling the gathered materials. Also, the class reviewed grammar check, spell check and the use of the thesaurus.

The third week was dedicated to the completion of the book. All work that was submitted and selected was proofread and peer-edited. The writer introduced Print Shop and its capabilities so that the students could illustrate the selected writings before entering them into the booklet.

The fourth and final week was a time for completing any unfinished work. The writer and students conducted an evaluation of the program with suggestions on how it could be improved in the future.

During the time of implementation, the writer's role was one of educational leadership. The first way that this was displayed was through the planning of the in-service day. In order to insure success, the writer met with the Business Department and collaborated in designing an instructional plan that was thorough and informative. Once that was completed the writer continually met to discuss any troubled areas. Also, a bi-weekly meeting with the student assistants was held to plan, evaluate and improve the program.

The next step in which the writer exercised leadership was by organizing the enlistment of students who have computer competency to help plan a hands-on workshop for other students. Some students were responsible for writing the help sheets that were used, while others demonstrated various uses of the computer. In the activity, the writer not only showed direction but also developed leadership in the student assistants. Much of the success of the implementation depended upon the coordination of the assistant instructors and staff members. It was the writer's responsibility to make sure that meaningful communication constantly took place through regular conversation, up-dates at scheduled department meetings. The technology utilization for the writing class was unique in our school, so some unforeseeable problems occurred during the planning and implementation stage. However, because of the proper planning and keeping an open mind with flexibility, many of these problems were eliminated or at least lessened.

CHAPTER V

RESULTS, DISCUSSION AND RECOMMENDATIONS

Results

Existing technology which has been present in the school for over five years has not been successfully utilized by students for the English writing class. The writer devised a strategy in which the students had the opportunity to use the lab. Increased computer utilization for the writing class was attained through teacher and student education.

The writer strongly feels that the practicum achieved the expected outcomes. Outcome #1 - Based on a daily class sign-up sheet, the computer lab will be used by the English writing class three times a week during the three month implementation period. This was easily achieved once the practicum was initiated and the students became more familiar with the procedure. The sign-in log indicated that all students used the computer lab a minimum of three times per week. Although there is only one writing class, students used the computers in other classes to complete essays, projects or papers. The success of the students was demonstrated during implementation by exhibiting an understanding of the basic functions of the computer for the writing class.

Initially the computer lab was going to be used as a tool that the students could use to assist them in the writing process. As the practicum progressed that certainly was achieved but another unexpected outcome evolved and other students outside of the writing class had developed an interest in using the lab to complete their work. The writer had always believed that the role of a teacher is to direct the student on how to

teach himself. In using the computer lab the writer's role which initially was one of instructor, motivator and resource person was reduced to that of an organizer. After the students became familiar with the routine of using the lab, they taught themselves. Whatever technical advice was needed was supplied by the assistant instructors, teacher or with the more difficult problems, the computer business teacher. Not only did the class surpass the expected outcome of using the computer lab, but also many other students not enrolled in the class had the opportunity to use the lab if a station was open and they had an unassigned period during the time in which the writing class was offered or after school when the lab was made available to students who had not completed their work during class time.

Outcome #2 - An in-service sign-up sheet of at least four teachers out of eight in the department will demonstrate a starting point from which to build future computer competency. With the sign-up of five teachers, this outcome was attained without much difficulty. Teachers in the department were at various stages of their computer competency. Some had been using computers for word processing, scoring tests and various bookkeeping chores. The in-service time, which was offered at a mutually agreeable time, introduced teachers to new programs that they could eventually use in their classes, trouble shooting techniques, and taught them how to be competent in the use of existing technology that was present in school.

A problem encountered at this stage was that although some teachers had experience with computer usage -- it was a different computer; therefore, much of the functions had a difficult name or process by which it could be accessed. Once the

terminology was addressed, some of the barriers were removed and progress became easier.

Also, with increased attention toward technology, the school bought three C.D. Roms. The in-service provided a hands-on demonstration of the C.D. Rom and showed the many possibilities that they could bring to the classroom. A discussion ensued following the in-service program which focused on technology and the implications that it has on the future of our students and our teaching methodology. After the meeting, it was quite evident that even the most reluctant "technology pioneers" were willing to investigate the use of computers in their classes. This dialogue created an atmosphere of openness to ideas that will stimulate and motivate not only the teachers but also the students.

Outcome #3 - Since many schools in the area are in the process of updating their teaching methodologies through the use of computers, it is the writer's intent to establish a network with them for the purpose of sharing ideas and expanding meaningful and purposeful communication by using computers effectively. A starting point which would demonstrate success would be that at least one other school would be on line for the purpose of the writing exchange. The school in which the writer works is just at the starting point of using technology for education. During the planning and implementation of the practicum, the writer called and met with various teachers in the area to discuss how their districts were using and planning on using technology in their curriculum. This opened new doors in the writer's thinking about networking.

At first it was the writer's intention to establish a network with schools just in the area. However, in the discussions with other school districts, the topic of Internet and commercial online services was constantly brought up. This sparked interest in the writer. The writer subscribed to a commercial network on his home computer and that again

opened new doors in the use of technology. The writer's department head did some preliminary research for "Classroom Connect" which guided us to Internet addresses. This further blossomed into "Keypals" a pen pal correspondence via E-mail.

Now the students in the writing class have the opportunity to exchange ideas, poetry and essays with classes many miles away. As the exchange of work became more frequent, another interesting opportunity evolved. A California class with whom the writer's class had been corresponding was doing a project on the state of New Jersey. During one of the E-mail sessions they sent a set of questions regarding their project. After the next correspondence, the writer's class had a set of questions about their area of the country. Some interesting things developed once the class started using the E-mail. It has motivated reluctant students to write and share their work with students in the next district or across the nation. Also, it has sparked curiosity in many students. Topics ranging from geographical and demographic make-up of corresponding states, to how Internet and Commercial online services can help them with school work are common. The expected outcome was first conceived as using technology to communicate and exchange ideas with neighboring schools -- this was achieved. It has also grown into a vehicle in which the student has made contact and continues to communicate with students throughout the country.

Discussion

During the time of implementation the writer's role was primarily one of educational leadership. Throughout the practicum, the most important step was planning ahead. The first in-service was designed to help remove some of the fears that were held

by staff members who were not frequent users of the computer. Shipman (1987) stated that most fears were caused by unfamiliarity with the technology and that these fears were often common in students and teachers alike. During the in-service many of these fears were removed. It was designed as a strictly hands-on presentation with ample time for experimentation and questions. The writer met often with the business department and collaborated in designing an instructional plan that was thorough, informative and non-threatening. Once the initial design was established, the writer continually met to discuss any troubled areas. Also, since an important factor in the success of the practicum was the student assistants, a bi-weekly meeting with the student assistants was scheduled to help plan, evaluate and improve the program. Overcoming technophobia and establishing cure for computer-phobia is as complex as some of the computers themselves (Widmer, 1984). The writer found that through the attention to detail in the planning of the in-service and instructing and monitoring the student assistants much of the apprehension that was experienced by student and teacher were removed. Hignite (1997) found that attitudinal adjustment was a major hurdle to overcome in the implementation of computer instruction. The attitude that the writer encountered was based on the unknown. Through constant and positive strategies, many of the negative feelings were changed to the positive.

Another positive outgrowth which was not originally anticipated was student response and help. At first, the computer lab was used in the writing class for word processing. Students followed the writing process and were taught some of the simple functions that the computer could do. As the students became more comfortable with the use of the computer, interaction began to take place between the students who had the experience and know-how with the computers and the people who did not. Quite often the shy student who was computer competent helped the gregarious student who was

not. The writer was asked many questions during the early phase of implementation for which he did not have an answer. The student assistants often could help and if the answer was not known, the answers could be found and discussed during the subsequent meetings. Any new problems that occurred and their answers were put on the sheet that was given to each student. This sheet was periodically updated. The involvement of students as assistants developed their leadership and self esteem. Then, once the operation of the computer was familiar for all students, experimentation with other aspects of the computer took place. The interesting thing that the writer found was that this outgrowth was not by the insistence of the teacher but rather because the students wanted to learn. The natural progression then was getting "on-line". The first experience with being "on-line" was familiarization of the various services that "on-line" provides. Students were able to get the most current news, sports and weather. They were able to use an encyclopedia and do research for their science project. Word of the possibilities spread through the class and to some other students as well. Now they had the ability to access information without moving from the computer. Plus another feature that they were excited about was the "key pals". Many contacts were established with students throughout the country. Students exchanged information about themselves, their school and their community. They even sent samples of their work from writing class. When the practicum was first initiated, the writer planned on establishing a network with area schools, but he did not invision that this network could expand nationally with the possibility of it going international. This was a pleasant, unexpected outcome that grew out of the inquisitiveness of the students as they became more familiar with the computer and its multifaceted usage.

Recommendations

1. Expand use of the computer lab for all English classes.
2. Encourage and allow students to use computer lab for writing assignments in other classes.
3. Introduce the services of "on-line" communication to all faculty with periodic refresher in-service time.
4. Contact all area schools to exchange information about what is being done in the field of technology.
5. Offer summer courses to teachers who want to familiarize themselves with the various capabilities of the computer.
6. Offer summer courses for potential student assistants to develop leadership skills and increase their technical knowledge.
7. Invite people from the intergenerational club for a demonstration of the students' ability with the computer and then allow them to participate in a hands-on experience. This could open the door for future possibilities of them becoming computer assistants once they become computer competent.

Dissemination

Throughout the practicum, the writer has been involved with networking. Before the implementation of the practicum the writer met with local computer stores to discuss what programs were available for the students. This opened up lines of communication with members of the community. The students benefited by receiving a discount for any purchases.

The next experience with networking was when the writer met with members of the business department. This was valuable because it supplied the writer with technical

information that helped during the practicum's implementation. It also formed a bond between staff members who were working for the same result. Too often with the design of education as it is, there is not much opportunity where staff members can collaborate and exchange ideas that are important for the educational development of the students.

Finally, the "on-line" experience has formed a line of communication to many areas of the country. This has educated not only the student but also the writer. The student has learned about the area, geography and climate of the various schools and also has exchanged writing assignments. The writer has exchanged lesson plans and established a rapport with teachers across the country. Although the correspondents are thousands of miles away, it certainly has been interesting to discover the many similarities. The writer knows that the practicum is only the beginning. However, the strides that have been made to use the computer lab in the writing class can serve as a major stepping stone for other classes. The writer thinks that in order to successfully compete in the 90's, students must have computer competence. This must be achieved not in an isolated class period but in as many situations as possible. This will help not only to develop more fluent use of the computer but also emphasize the importance of its use.

The writer plans to use some of the experiences in an article written for an educational journal.

References

Barba, R. H. (1991, October). Assessing American children's attitudes toward computer technology. International Journal of Mathematical Education in Science and Technology, 22, 731-737.

Barrow, B. R., & Karris, P. (1985, March). A hands-on workshop for reducing computer anxiety. Journal of College Student Personnel, 26, 167-168.

Bracey, G. W. (1988, March). Still anxiety among educators over computers. Electronic Learner, 7, 20.

Englemann, C. (1992, March). What influences the daly-miller test for writing apprehension. Paper presented at the Annual Meeting of the Conference of College Composition and Communication. Cincinnati, OH.

Furst-Bowe, J. (1992). The utilization of instructional technology by beginning technology education teachers. International Journal of Instructional Media, 19, 229-234.

Germain, J. M. (1987, October). Teaching computer literacy without computerese. Curriculum Review, 27, 7-8.

Harmon, G. O. (1986, March). Microcomputers: purchasing patterns and instructional uses in secondary schools. Journal of Education for Business, 61, 245-248.

Hignite, M. A. (1992). Assessment of the relationships between the computer attitudes and computer literacy levels of prospective educators. Journal of Research on Computing in Education, 24, 381-391.

Kennedy, C. E.: 2nd. (1988, March). Computer-phobia. The School Counselor, 35, 297-298.

Roberts, G., & Mutter, G. (1991). A celebration of literacy: computer-assisted writing in the St. James Assiniboia School Division No. 2 how it started and how it works. Education Canada, 31, 4-7.

Selfe, C. (1987, May). Creating a computer lab that composition teachers can live with. Collegiate Microcomputer, 5, 149-158.

Shipman, P. (1986, October). Teaching to overcome techno-phobia. Education Week, VI, 24.

BEST COPY AVAILABLE

Turnipseed, D. L., & Burns, O. M. (1991). Contemporary attitudes toward computers: an explanation of behavior. Journal of Research on Computing in Education, 23, 611-625.

Widmer, C. C., & Parker, J. (1984). Computerphobia: causes and cures. Action in Teacher Education, 5, 23-25.

Vander Geest, T. (1987, April). The development of a writing aid for secondary education. Computers and Composition, 4, 27-43.

BEST COPY AVAILABLE